Math Out of the Box® Second Grade Set

Math Out of the Box® is based on the latest research about how children learn. A team of teachers, directed by specialists in math and science reform, worked together to develop, field-test, revise, and complete the highest-quality lessons and materials based on the NCTM Principles and Standards for School Mathematics. Each Algebra, Geometry, and Measurement module offers 20 classroom-tested lessons, for approximately 4-6 weeks of instruction. Number Concepts modules are separated into 2 units with 2 manuals that both provide 20-30 classroom-tested lessons, each for approximately 9 weeks of instruction. All modules are developed around a central mathematical theme, materials provided equip one class of 30 students, and is correlated to Kentucky's Program of Studies.

	Teacher Edition			
9781435001817	\$189.95			
Developing Algebraic Thinking: Collecting and Sorting Teacher's Guide				
9781435001930				
Developing Geometric Logic	: Rows and Columns Teacher's Guide			
9781435002050				
Developing Measurement Be				
9781435001275				
Developing Number Concept	s: More and Less Teacher's Guide (A)			
9781435001305		\$189.95		
Developing Number Concept	s: More and Less Teacher's Guide (B)			
	Essential Items			
9780892784448	Nimas MathML	\$615.95		
Developing Algebraic Thinkin	ng: Collecting and Sorting Module			
9780892784622	Nimas MathML	\$725.95		
Developing Geometric Logic	: Rows and Columns Module			
9781435001312	Nimas MathML	\$770.95		
Developing Number Concept	s: More and Less Module (A/B)			
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Developing Measurement Be	enchmarks: Large and Small Module			
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Calculator Set A				
9781435003293		\$235.00		
Math Matters® en español a	and Math Matters® Spanish/English Set			
9781435003286	\$50.00			
Math Matters® Geometry, D	Pata, Graphing, and Probability Set			
9781435003279		\$71.00		
Math Matters® Numbers, No	umber Sense, and Operations			
9781435003262		\$71.00		
Math Matters® Time, Money	and Measurement Set			
	Free with Purchase items			

ISBN 9781435003194

> Contract Price \$2,968.80

> > <u>Grade</u> 2

TYPE P2

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<u>Author</u> Clemson University

> Edition 1st

Content Mathematics

Readability

Accessibility Nimas MathML

Research http://www. mathoutofthebox. org/research/researchb ase.shtml

Premium Content

http://www.carolinacurriculum.com/login.asp

Publisher	ISBN 9781435003	3194	Publisher - Carolina Curriculum Publishing		Publishing	
	Math Out of the Box® Second Grade Set					
the Pu	Type - ${ m P2}$	P2 Author - Clemson University				i d
ed by	Copyright - 2009	Edition -	1st		Readability -	
Copyright - 2009 Edition - 1st Reada Course - Mathematics Grade			Grade(s) -	2		
	Teacher Edition ISBN if applicable					9781435001817

Overall Recommendation:

Recommended as BASAL

Overall Strengths, Weaknesses, Comments:

if this box is not checked, the evaluators have chosen NOT recommend as basal

Basal activities require higher or thinking skills of students. The activities are hands on and engaging. However, the organization of the materials is difficult to understand and follow.

NIMAC Accessibility NML Ancillary Yes Free with Purchase Yes

Research Yes http://www.mathoutofthebox.org/research/researchbase.shtml

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CRITERIA

This basal resource ...

A. Encompasses KY Content Standards & Grade Level Expectations Strong Evidence

Text is designed to be used in an elective course outside the Program of Studies

	<u> </u>		
1) Includes the 5 Big Ideas of mathematics to the following extent:			
a) Number Properties and Operations	Strong Evidence		
b) Measurement	Strong Evidence		
c) Geometry	Strong Evidence		
d) Data Analysis and Probability	Strong Evidence		
e) Algebraic Thinking	Strong Evidence		
2) Addresses content-specific enduring understandings from the related Program of Studies standards.	Moderate Evidence		
3) Addresses content-specific skills and concepts from the related	Strong Evidence		

Program of Studies standards.			
4) Content addressed is current, relevant and non-trivial	Strong Evidence		
5) Provides opportunities for critical thinking/reasoning	Strong Evidence		

6) Strengths, Weaknesses, Comments:

- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

There is strong evidence in this basal to support the Kentucky program of studies. There are ample opportunities for students to utilize higher order thinking skills. The activities require critical thinking and reasoning. A weakness is that there is limited documented evidence in this basal to support content-specific enduring understandings related to the program of studies.

B. Functionality & Suitability

Moderate Evidence

1) Suitability

Strong Evidence

• Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

2) Content quality

Strong Evidence

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community
- Interconnections among mathematical topics

3) Connections to Literacy

Little or No Evidence

- Employs a variety of reading levels and is grade/level appropriate
- Use of multiple representations-concrete, visual/spatial, graphs, charts, etc.
- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- The text is engaging and facilitates learning
- Embedded activities enhance the understanding of the text *Note: may apply to either student or teacher editions*

4) Connections to Technology

Little or No Evidence

- Integrates technology and reflects the impact of technological advances
- Uses technology in the collection and/or manipulation of authentic data
- Embeds web links as a mathematics resource.

5) Support for Diverse Learners

Little or No Evidence

- Provides support for ESL students
- Provides support for differentiation of instruction in diverse classrooms
- Challenge for gifted and talented students
- Support for students with learning difficulties *Note: may apply to either student or teacher editions*

6) Strengths, Weaknesses, Comments:

• Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The content is free of bias and the quality of the content is presented in great detail. Gifted and talented students would be challenged by this basal. However, this basal does not show activities that meet the needs of diverse learners, including students with special needs or ESL students. There are very few examples of technology integration. The literacy suggestions do not list actual lessons or activities to go along with the book.

C. Supports Inquiry and Skill Development

Strong Evidence

1) Promotes Inquiry, research and Application of Learning

Strong Evidence

- Provides opportunities for inquiry and research that includes activities such as gathering
 information, researching resources, observing, interviewing, and evaluating information,
 analyzing and synthesizing data and communicating findings and conclusions, formulating
 authentic questions to deepen and extend mathematical reasoning.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, generalizing, justifying, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, number lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.

 Note: may apply to either teacher or student edition

2) Skill Development

Strong Evidence

- Provides opportunities to make sense of all mathematics
- Provides opportunities to recognize, create, and extend patterns.
- Provides opportunities for critical thinking and reasoning.
- Provides opportunities to justify/prove responses.
- Provides opportunities to ask deeper questions.
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

This basal has a plethora of activities that require critical thinking and reasoning skills. Students are asked open-ended questions and are required to prove their responses either orally or written. However, technology is not emphasized as a problem solving tool.

D. Supports Best Practices of Teaching and Learning

Strong Evidence

1) Engages Students

Strong Evidence

- Includes content geared to the needs, interests, and abilities of all students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated *Note: may apply to either teacher or student edition*

2) Uses Assessment to Inform Instruction

Strong Evidence

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels *Note: may apply to either teacher or student edition*

3) Strengths, Weaknesses, Comments:

 Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

The activities engage students through a variety of hands on activities. There are many examples of assessments. However, these assessments do not give strategies for instructional next steps.

E. Has an Organization/ Format that Supports Learning and Teaching

Moderate Evidence

1) Organizational Quality

Moderate Evidence

- Print and/or electronic materials present minimal barriers to learners, but also add encouragement for students to stretch and make further explorations.
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components, interactive software, calculators, physical and virtual manipulatives) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively

- Uses grade-appropriate type size
- Included media are durable, easy to use and have technical merit
- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text)

Strong Evidence

 Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

 Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The organization of the basal seems difficult to follow. It can be confusing to locate information at times as there are no indexes that list curriculum correlations or content. There is a photocopied spiral book that came with the basal to list KY content and program of studies correlations. However, this is very confusing and difficult to locate inside the basals themselves.

F. Has available Ancillary/ Gratis Materials

Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F

Moderate Evidence

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving
- Provides opportunities for intervention.

2) Strengths, Weaknesses, Comments:

 Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

The kits provide materials to promote higher order thinking. Manipulative kits seem to be disorganized. The materials do not list specific intervention strategies.